

Measurement of semi electronic decay of heavy flavor mesons in $d+Au$ collision at RHIC using PHENIX detector

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The PHENIX detector at RHIC has measured single electron spectra from heavy flavor decays in $p+p$ and $Au+Au$ collisions at $\sqrt{s_{NN}} = 200$ GeV. A strong suppression is observed compared to the binary scaling of $p+p$ collisions for high p_T single electrons in $Au+Au$ collisions providing evidence for strong medium effects. The motivation for measuring the single electron spectra from the decay of heavy flavor mesons in $d+Au$ collisions from the 2008 RHIC run is to determine parton distribution modifications, the Cronin effect and possible energy loss present in cold nuclear matter. These phenomena can mask hot nuclear matter effects and therefore must be understood in order to interpret the $Au+Au$ results. The analysis is still in progress, but the latest results will be shown during the conference